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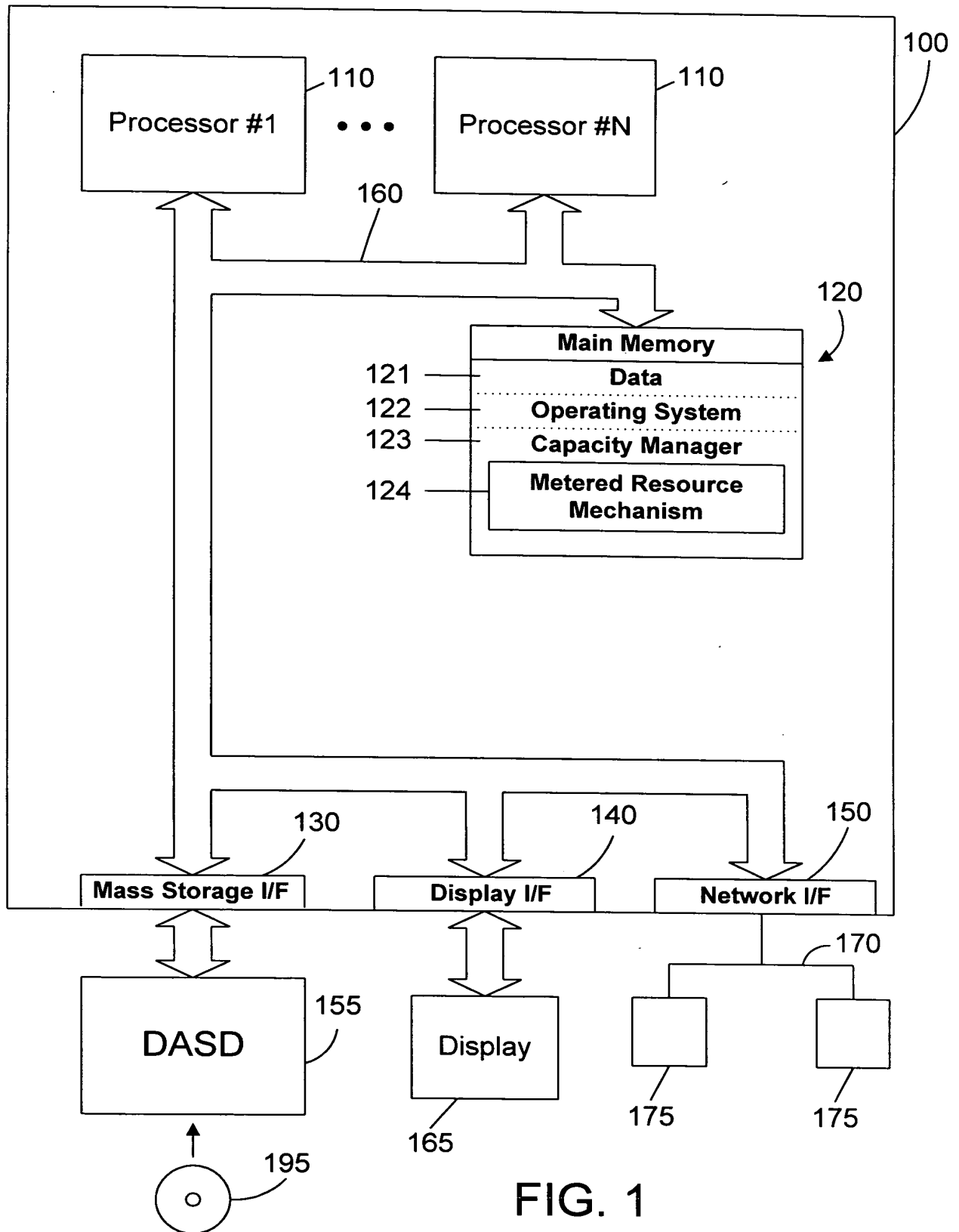


FIG. 1

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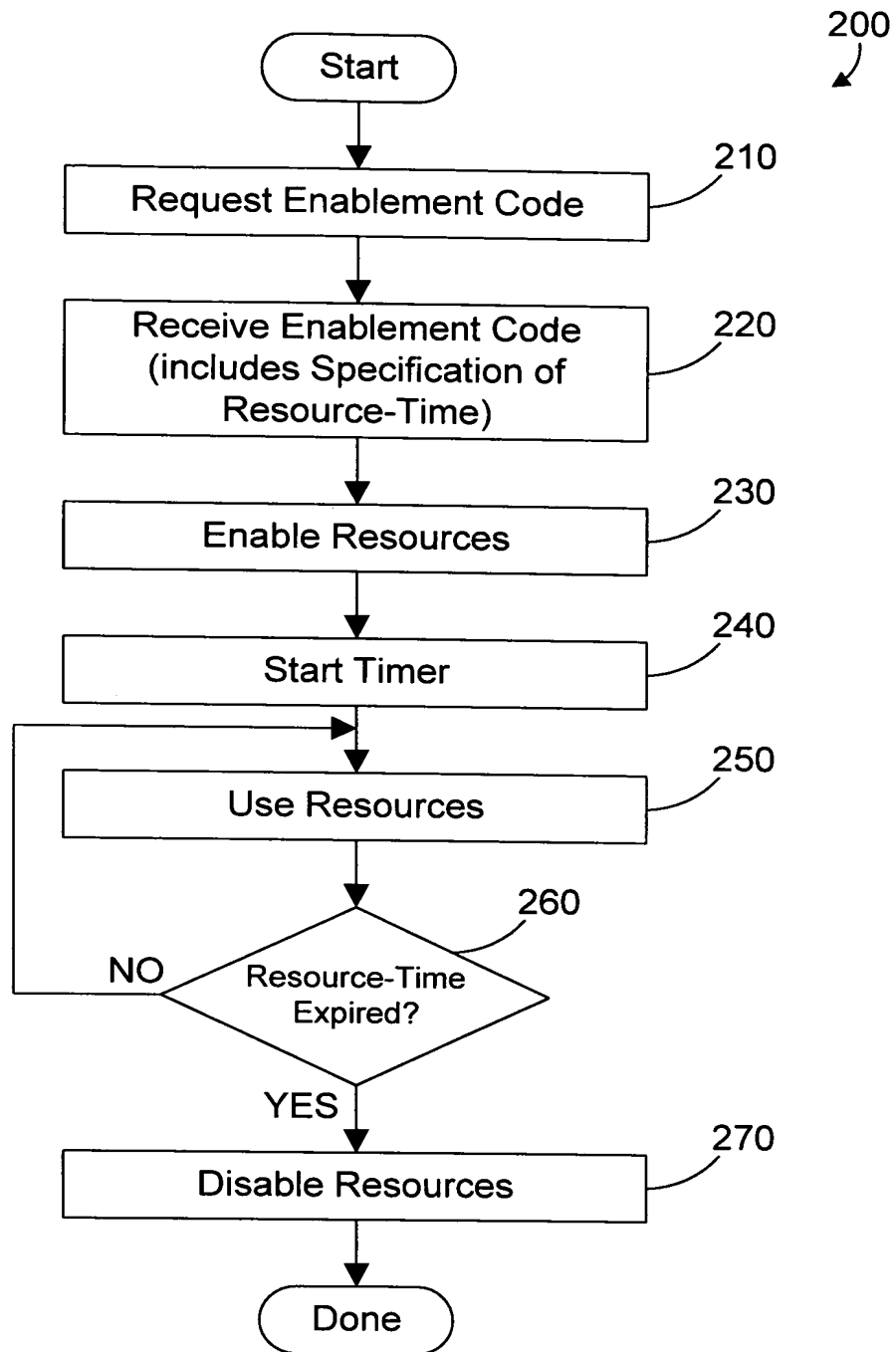


FIG. 2

Prior Art

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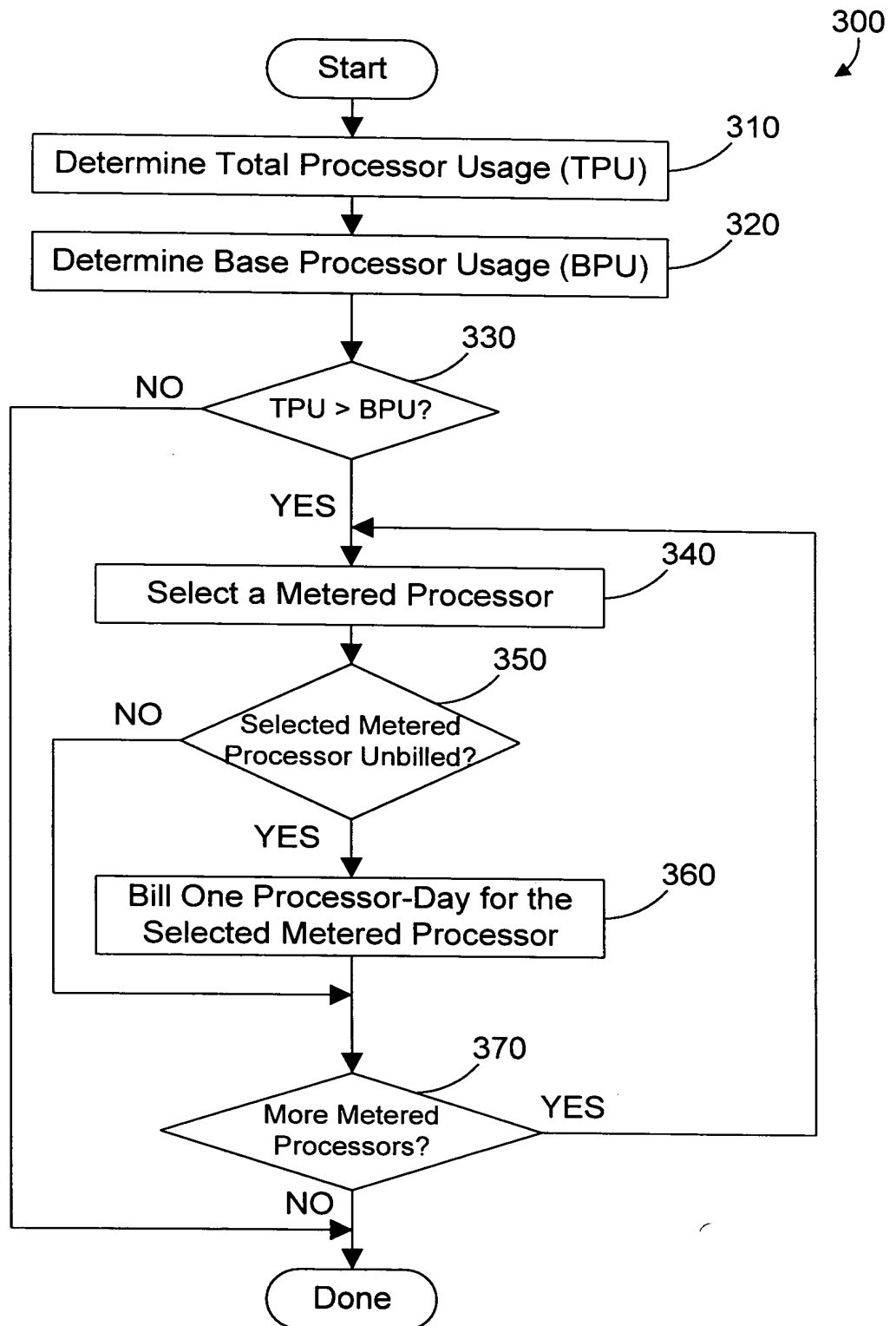


FIG. 3

Prior Art

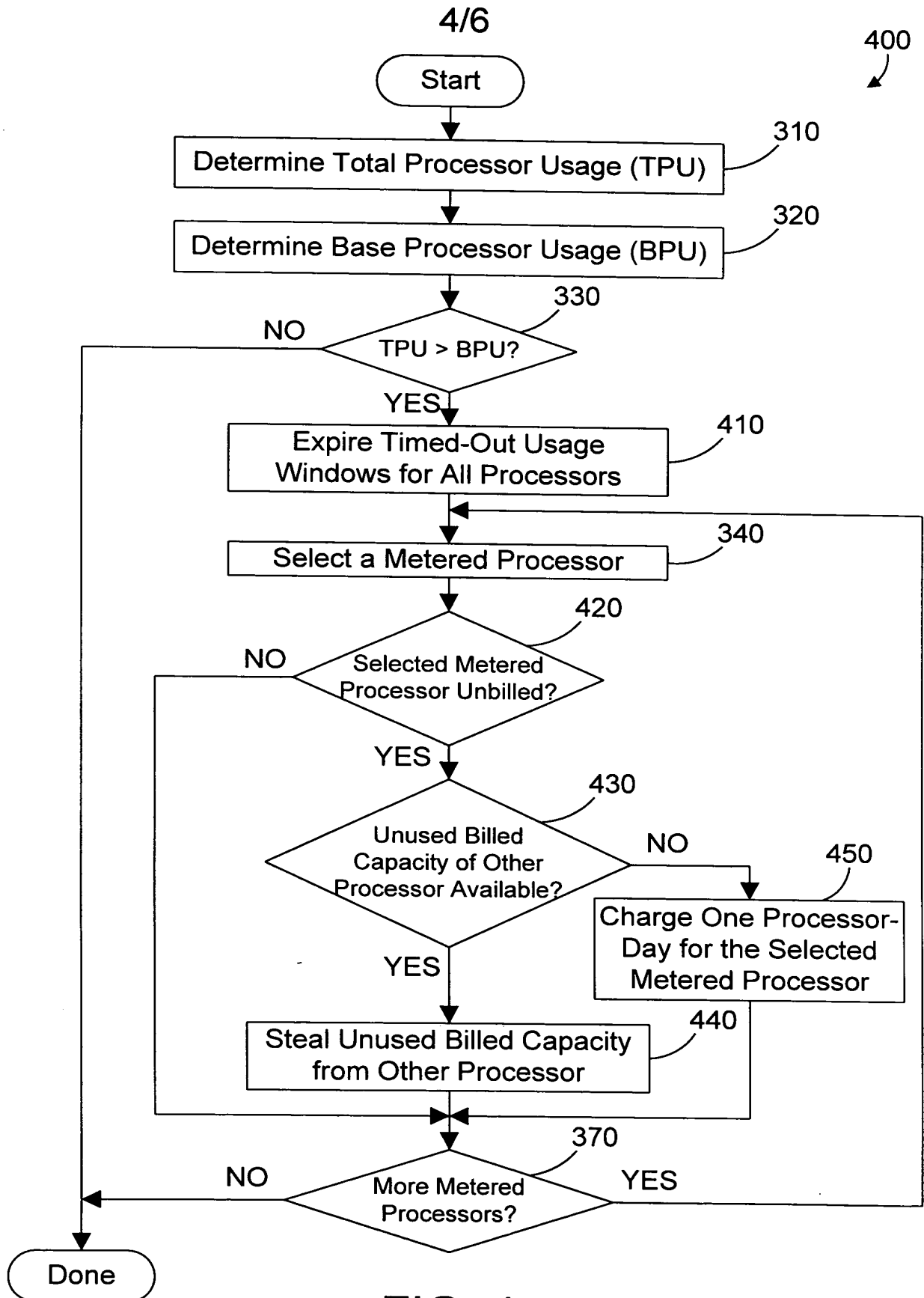


FIG. 4

APPARATUS AND METHOD FOR METERED CAPACITY ACCOUNTING OF
COMPUTER RESOURCES

GRIMM ET AL.

DOCKET NO. ROC920030317US1

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```
at initialization, get processor and pool usage figures from hypervisor calls

for (an infinite loop)
    sleep for a period of time, perhaps one minute, to accumulate usage      510
    for each partition
        get any shared pool this partition is using                          512
        get pool usage information from hypervisor                          514
        sum these values for all the partitions                             516
    end for

    calculate usage like this:
    totalProcessorUsage = lastProcessorUsage - currentProcessorUsage      520
    calculate baseProcessorUsage                                           522
    if (totalProcessorUsage > baseProcessorUsage)                          524
        for (each metered processor in system)
            expire any usage window that has timed out                     526
        end for
        for (each metered processor necessary for usage above base)        530
            if (totalProcessorUsage > baseProcessorUsage)                  540
                if thisMeteredProcessor is UNBILLED                        542
                    for (each remaining metered processor)                  544
                        if ((that metered processor is BILLED)             546
                            and (this one is UNBILLED)
                                steal its BILLED window                     548
                                this processor is now BILLED                 550
                            end if
                        end for
                    end if
                if thisMeteredProcessor is UNBILLED still                    560
                    bill 1 processor-day for thisMeteredProcessor           570
                    this processor is now BILLED                             572
                end if
            end if
        end for
    end if
    lastProcessorUsage = totalProcessorUsage //save this for the next look// 580
end for
```

FIG. 5

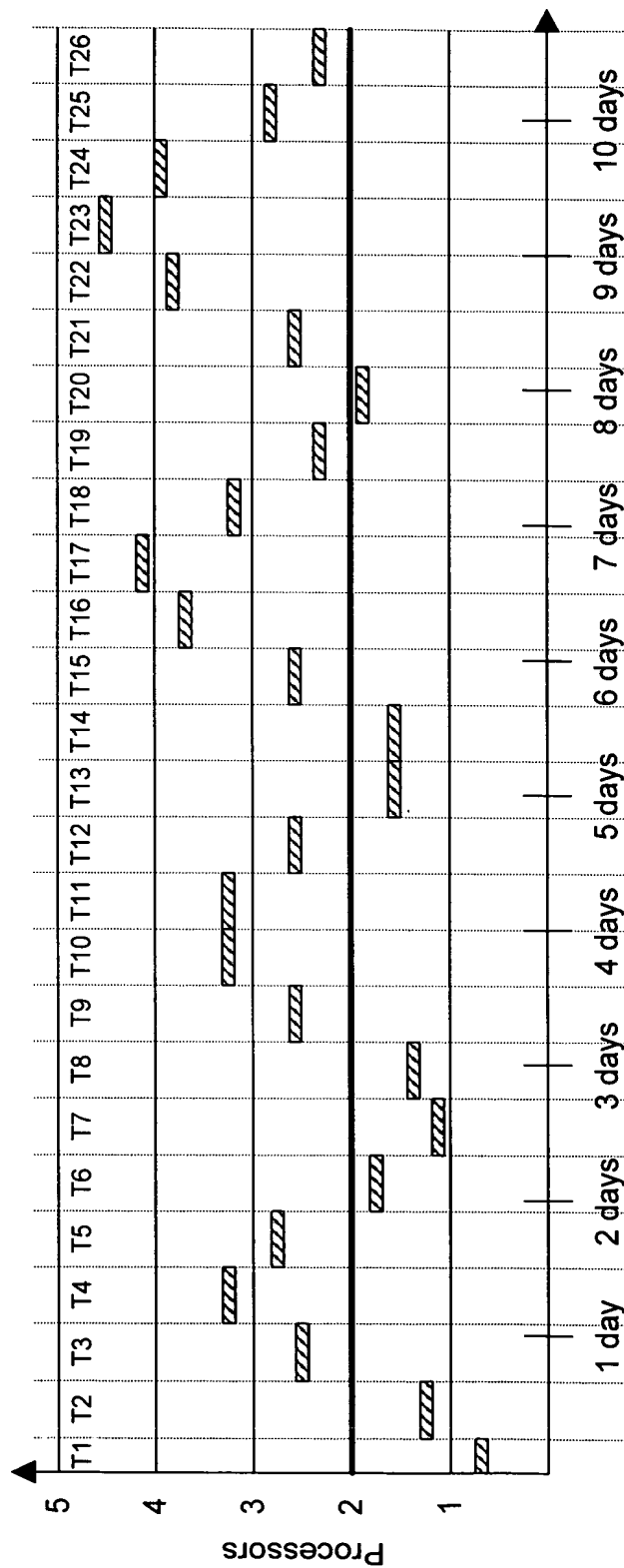


FIG. 6

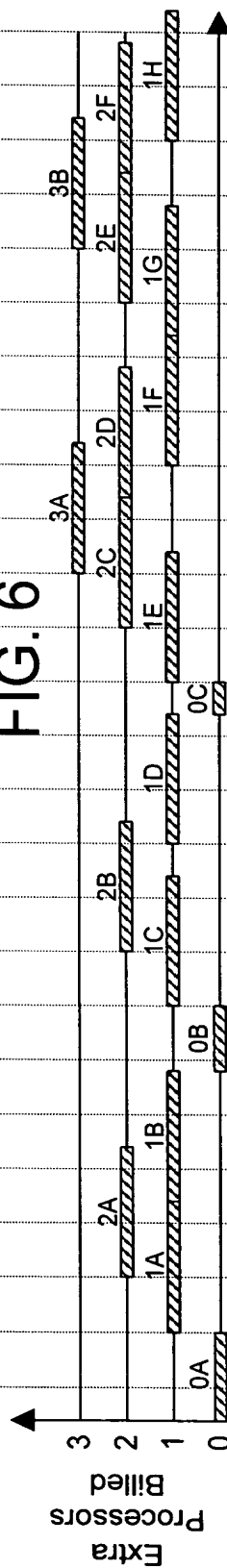


FIG. 7

Prior Art

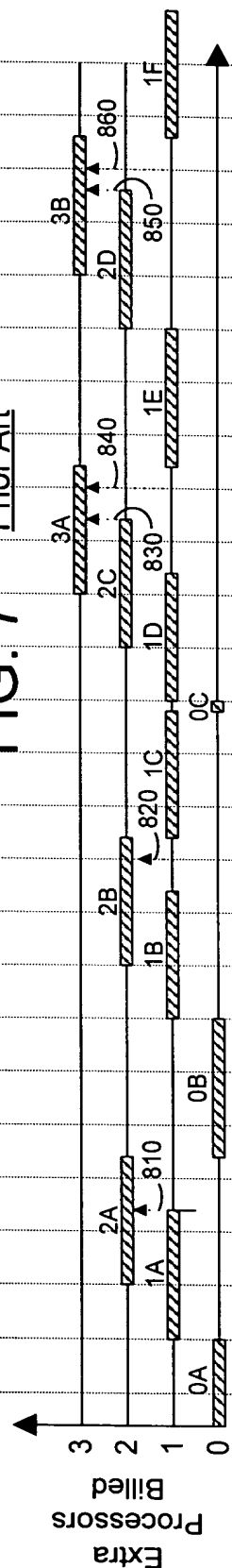


FIG. 8